### Reasoning about Multiplication

Your classmate Ellen says,

When you multiply by a number, you will always get a bigger answer. Look, I can show you.   
  
Start with 9.  
Multiply by 5 9×5=45  
The answer is 45 , and 45>9  
45 is bigger than 9.   
  
It even works for fractions.  
Start with 1/2.   
Multiply by 4. 1/2×4=2  
The answer is 2, and 2>1/2  
2 is bigger than 1/2.

Ellen's calculations are correct, but her rule does not always work.

For what numbers will Ellen's rule work? For what numbers will Ellen's rule not work? Explain and give examples.